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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/474,801 12/29/99 ADACHI

K 378-366P

EXAMINER

002292 TM02/0926  
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ART UNIT

PAPER NUMBER

2674  
DATE MAILED:

09/26/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

# Office Action Summary

Application No.  
**09/474,801**

Applicant(s)  
**Kaoru Adachi**

Examiner  
**Abbas Abdulsalam**

Group Art Unit  
**2674**



☐ Responsive to communication(s) filed on \_\_\_\_\_.

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claims

☒ Claim(s) 1-11 is/are pending in the application.

Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

☐ Claim(s) \_\_\_\_\_ is/are allowed.

☒ Claim(s) 1-11 is/are rejected.

☐ Claim(s) \_\_\_\_\_ is/are objected to.

☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been  
☐ received.

☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_.

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 3

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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### DETAILED ACTION

1. A certified copy of a foreign document has been received.
2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, and 3-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Itoh et al.(USPN 5585817)

Regarding claims 1 and 4, Itoh teaches an image input/output apparatus including an image input section (20), and an image display section (10) arranged in a matrix form. The input section includes a photo detective portion (109) which receives light and convert it into an electrical signal. See column 4, lines 9-12, 39-42, and Fig 1. Itoh teaches the photo detective portion with respect to parallel blocks, 109', and 109'' and output voltage V(out1) , and V(out2). See column 6, lines 17-24 and Fig 5. Furthermore, Itoh teaches the V(out) as it relates to the display section including a transparent electrode (105) , a thin film transistor (101), and gate electrodes. See Fig 2. However, Itoh does not specifically teach supplying driving pulses line by line in a predetermined order. On the other hand, Itoh does teach the supplying of electric signal to a scanning circuit. See column 1, lines 52-55.

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Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize Itoh's scanning circuit. One would have been motivated in view of the suggestion in Itoh that the scanning circuit is a functional equivalent to driving pulses line by line in a predetermined order.

Regarding claim 3, Itoh teaches about LCD. See column 4, lines 10-12

Regarding claim 4, it has been described above. In addition, Itoh teaches a semiconductor layer (114) for photo-electric converting means. See column 4, lines 42-44, and

Claims 2 and 5-11 are rejected under 35 U.S.C. 103 as being unpatentable over Itoh in view of Sasaki (USPN 5140440).

Regarding claims 8 and 10, Itoh has been described above. However, Itoh does not teach about a parallel-to-serial, and serial to parallel conversions. Sasaki on the other hand teaches about serial-to-parallel conversion sections (116, 118), and parallel-to-serial conversion sections (120, 122). See Fig 18.

Therefore it would have been obvious to one having skill in the art at the time the inventions was made to modify Itoh's input/output apparatus to incorporate a parallel-to-serial and serial-to-parallel sections. One would have been motivated in view of the suggestion in Sasaki that the serial-to-parallel ; and parallel-to-serial conversions sections are equivalent to the desired serial-to-parallel ; and parallel-to-serial conversion means respectively. The use of conversion sections for both parallel and serial configurations help function an image forming apparatus as taught by Sasaki.

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Regarding claims 7 and 11, it has been discussed above.

Regarding claims 2 and 5, Sasaki teaches about image information with respect to charge coupled device. See Fig 2.

### **Conclusion**

3 The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following arts are cited for further reference.

U.S. Patent No. 4,775,891 to Aoki et al.

U.S. Patent No. 5,270,711 to Knapp

U.S. Patent No. 5,446,564 to Mawatari et al.

U.S. Patent No. 6,191,767 to Mano et al.

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4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Abbas Abdulsalam** whose telephone number is **(703) 305-8591**. The examiner can normally be reached on Monday through Friday (9:00-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Richard Hjerpe**, can be reached at **(703) 305-4709**.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

**or faxed to :**

**(703) 872-9314**

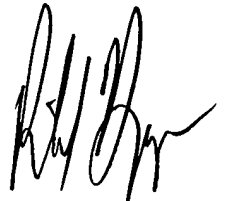
Hand-delivered responses should be brought to Crystal park II, crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Abbas Abdulsalam

Examiner

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**RICHARD HJERPE**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2600**